

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference 99104CON/MBL	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/28957	International filing date (day/month/year) 29 SEPTEMBER 2000	Priority date (day/month/year) 01 OCTOBER 1999
International Patent Classification (IPC) or national classification and IPC IPC(7): C09D11/00; C09K 3/00; C09C 1/44 and US Cl.: 106/51.6, 106/51.75, 106/516, 106/576		
Applicant CABOT CORPORATION		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 4 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(X) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  24 APRIL 2001	Date of completion of this report  04 APRIL 2002
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer  Taylor Victor 
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Form PCT/IPEA/409 (cover sheet) (July 1998)\*

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/26957

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☒ the description:  
pages 1-29, as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of
- ☒ the claims:  
pages 30-33, as originally filed  
pages NONE, as amended (together with any statement) under Article 19  
pages NONE, filed with the demand  
pages NONE, filed with the letter of
- ☒ the drawings:  
pages NONE, as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of
- ☒ the sequence listing part of the description:  
pages NONE, as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.  
These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/fig NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

Form PCT/IPEA/409 (Box I) (July 1998)\*

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/28957

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. statement

Novelty (N)	Claims	5, and 6-19	YES
	Claims	1-4, 6-7, and 20-28	NO
Inventive Step (IS)	Claims	none	YES
	Claims	1-3, 6-7, and 20-31	NO
Industrial Applicability (IA)	Claims	1-31	YES
	Claims	none	NO

## 2. citations and explanations (Rule 70.7)

Claims 1-4, 6-7, and 20-28 lack novelty under PCT Article 33(2) as being clearly anticipated by Adams et al (US 5,698,016).

Adams et al disclose a modified pigment such as carbon black having attached at least one organic group( see col. 6 , lines 28-34) and at least an amphiphilic ( see col. 6 ,lines 25-36), which can have a charge opposite to that of the organic ionic group( see col. 1, lines 1-58); furthermore, for the organic group attached to the carbon, the organic group can be at least one aromatic group or one C<sub>1</sub>-C<sub>12</sub> alkyl group( see col. 1, lines 1-58).

Furthermore, the reference does indicate that the formation of a non-aqueous or aqueous emulsion inkjet ink contains a suitable vehicle, binders and additives (see col. 9 lines 45-59). Moreover, Adams et al disclose a carbon black with a polymeric cationic amphiphile (see col. 20, lines 1-58) such as methyl acrylate, methyl methacrylate, butyl acrylate, styrene (see col. 4 , lines 14-16). The claimed compounds are identical with the compounds disclosed in the reference.

Claims 29-31 lack an inventive step under PCT Article 33(3) as being obvious over Adams et al(US 5,698,016) in view of Kato et al(US 5,751,115).

Adams et al disclose a modified pigment such as carbon black with a polymeric cationic amphiphile (see col. 20 ,lines 1-58).

However, Adams et al differ from the instant invention in that a print plate contains a substrate, a protective layer and an absorptive layer containing at least one modified pigment and a method of imaging a lithographic print plate using a laser is not disclosed, along with subjecting the plate to a solvent for the removal of portions from the imaged layer.

Kato et al disclose a preparation of a waterless lithographic printing plate by using a laser beam (see col. 8 ,lines 8-11). Furthermore, the photoconductive layer includes a substrate with a precoated layer(see col. 9 ,lines 40-50),charge  
(Continued on Supplemental Sheet.)

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PCT/US00/26967

## Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

## V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

generating agents including organic pigments(see col. 6 ,lines 65-67) such as carbon black(see col. 17 ,line 18). Moreover, in the wet process, the non-tacky resin layer is treated with a solvent to remove portions from the imaged layer.(see col. 31 ,lines 13-15).

Therefore, if the person having an ordinary skill in the art had desired to improve the properties of the printing plate, it would have been obvious for the skillful artisan in the art to have used Adams et al's modified carbon black with a polymeric cationic amphiphile in the Kato et al's preparation of the waterless lithographic printing plate as an alternative to the ordinary carbon black with an expectation of a similar success as in the Kato et al's process.

Claims 5 and 8-19 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest the claimed compounds.

## ----- NEW CITATIONS -----

US 5,731,115 A (KATO et al) 24 MARCH 1998, see col. 1 , lines 12-13, col. 9 , lines 40-67; col. 10 , lines 1-2.